

DE

Ally

β of worm 12 and worm gear 14. Such alteration of helix angles α, β allows for contact to be maintained on facing flanks of teeth 26 of worm gear 14 when no additional torsional load is imposed on worm/worm gear assembly 10. Alteration of helix angles α, β can be attained by changing the dimensions and positioning of teeth 24, 26, or it can be attained by skewing axes of rotation 16, 20 of either or both of worm 12 and worm gear 14. Helix angles α, β are generally altered such that the difference therebetween is about 0.5 degrees to about 2.0 degrees. The resulting double flank contact allows for a smooth power transmission between worm 12 and worm gear 14, a smooth transition between spring rates, and a minimum amount of turning torque.

Please add the following paragraph to page 10 as the penultimate paragraph of the Detailed Description:

A2

~~*Sub 2*~~ Although the worm/worm gear assembly and its associated parts are hereinbefore described as comprising teeth having flanks that are arcuately formed and concavely oriented relative to the corresponding tooth, it should be understood that the worm/worm gear assembly may be defined by teeth having flanks that are arcuately formed and convexly oriented relative to the corresponding tooth, as is shown at 110 with reference to FIGURE 6. Such a worm/worm gear assembly 110 comprises worm gear teeth 126 that are convexly oriented and worm teeth 124 that are concavely oriented and that mesh with teeth 126 to define spaces 154 therebetween. Worm/worm gear assembly 110 operates in a manner similar to the worm/worm gear assembly 10 shown with reference to FIGURES 1 through 5. Under low- or no-load conditions, double flank contact is maintained solely at the outboard portions of the flanks of each convexly oriented worm gear tooth and its adjacent concavely oriented worm tooth. Under moderate-load conditions, the spring rate increases due to higher deflection and the limits of the flexibility of the teeth are approached.

IN THE CLAIMS

Please cancel claim 42 without prejudice.

Please amend claims 2, 11, 20, 26, 32, 37, 39-41, 43, and 44 as indicated.